REMARKS

This amendment is in response to the Official Action mailed February 26, 2004.

In the present paper, Applicants have made no amendments to the claims. A listing of the claims is provided for the Examiner's convenience. Claims 1-5, 7-15 and 17-26 are now presented for the Examiner's consideration in view of the following remarks:

*The Present Application*

The present application is directed to a call center capable of accepting calls from a plurality of disparate telecommunications networks. Specifically, agent availability information is shared among the disparate networks through an Agent Availability Network Control Point (AANCP) that may reside in the call processing center (present spec., p. 6, lines 3-17). The AANCP contains an I/O module that interfaces with each disparate telecommunications network (p. 6, line 18 – p.7, line 1). The inventors have discovered a technique in which the AANCP operates as a Network Control Point for each of the disparate networks, responding to queries regarding agent availability. By permitting callers from multiple disparate networks to access a common pool of agents, the inventive method and apparatus can balance the call load from those disparate networks among the agents at the call center.

Once an available agent is identified, connection information such as a routing telephone number is returned in response to a query from one of the disparate networks. The information is used to connect to the available agent (p. 7, lines 16–18). Routing of the connection is handled by a Routing Options module of the AANCP. That module contains a database with information relating to various routing strategies such as lowest cost criteria, a hierarchical criteria, an

RTNR/Optimized routing criteria, a time of day, a day of a week, a call origination location, and a network congestion condition (p. 7, lines 5-10).

One aspect of the invention is that the system may consider criteria in addition to agent availability in selecting an agent. The other criteria are stored in an agent inventory database module accessible to the AANCP. Those criteria may include agent skill level and most idle agent criteria (p. 7, lines 3-5).

Once the call is routed to an available agent, the AANCP updates an agent availability field in a database associated with that agent to indicate that the agent not available. When the call is terminated or disconnected, the AANCP updates the field again to indicate that the agent is available (p. 7, line 18 – p. 8, line 1).

The Examiner has rejected claims 1-5, 7-15 and 17-26 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,742,675 to Kilander et al. ("Kilander").

*The* Kilander *Patent*

Kilander discloses a call center that is connected to a public switched telephone network (PSTN), through which callers communicate with agents (Kilander, Abstract). Kilander neither teaches nor suggests connection to any other type of network, and does not teach or suggest connection to more than one disparate type of network. For example, the details of operation disclosed in Kilander are directed to a PSTN-type network only:

> In operation, when a call to the business/service's telephone number is received by the PSTN switch, it is routed to the call center controller along with address information attached to that call, e.g., the callee identity, and in some telephone switches, the caller identity.

Kilander, col. 2, lines 60-64. The equipment described in Kilander further shows a system in which calls are received solely from a PSTN:

> Referring to FIG. 1, an overall block diagram of the automatic call distribution system 10 according to the present invention is shown. The public switched telephone network (PSTN) 12 routes calls to a PSTN switch 14 which is connected to a call center controller 18 and a plurality of call handling agent workstations 32a and 32b. One example PSTN switch is the Ericsson AXE-10 telephone switch.

Kilander, col. 3, line 66 – col. 4, line-5.

As noted by the Examiner, Kilander does not teach a response to a query that includes connection information for the identified agent. Instead, the call service center of Kilander transfers the call via a PSTN switch (col. 5, lines 43-50).

The sole criterion used by Kilander in selecting an agent is availability: "The call center controller selects an agent based on agent availability as sensed from agent inputs at each agent's computer terminal" (Kilander, col. 2, lines 27-29). Kilander nowhere discloses or suggests using other criteria such as agent skill level or most idle agent measurements.

An important feature of the Kilander system is the technique for placing an agent back on the available agent list after the agent has completed a call. Kilander teaches waiting for an agent to indicate his availability through a computer terminal, giving the agent time to complete paperwork after he hangs up (Kilander, col. 2, lines 29-36). Kilander therefore specifically instructs NOT making an agent available based on when the agent is not in communication with a caller, but instead to base agent availability on an affirmative indication from the agent via a computer terminal.

***Discussion***

Introduction

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. M.P.E.P. § 2143.03 (*citing In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

"In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Applicants respectfully assert that, for the reasons stated below, the Examiner has not established a *prima facie* case of obviousness because the teachings of Kilander regarding several claim limitations are not sufficient for one of ordinary skill in the art to make the combination proposed by the Examiner.

No Suggestion of a Call Center Connected to Disparate Communications Networks

Each of the independent claims 1, 11, 21 and 22 requires that the call center be connected to a plurality of "disparate communication networks." Applicants respectfully submit that, before the present invention, no suggestion existed for sharing information on agent availability among disparate networks.

Specifically, Kilander makes no suggestion regarding the connection of disparate networks to a single call center. Instead, Kilander particularly discloses the connection of the call center to a PSTN for receiving incoming calls. As noted above, that disclosure appears in numerous passages of Kilander, both in discussions of the method and in discussions of the hardware. Through all that discussion, Kilander never proposes or suggests that another type of network could be connected, and certainly does not suggest that two or more disparate networks could be connected.

Applicants respectfully submit that the Examiner has provided no teaching in any cited reference to connect a call center to disparate networks. That element of the arrangement made by the examiner simply does not appear in the cited art, and is nowhere suggested by that art.

Even if the disparate network element appeared in the cited art, the Examiner has provided no motivation to incorporate it in Kilander. The Examiner asserts that "such an arrangement would provide callers using disparate networks with a choice of available agents." Neither Kilander nor the present invention, however, provides a caller with any choice of agent. It is not understood how the arrangement proposed by the Examiner would provide a caller with such a choice.

Applicants therefore submit that Kilander does not teach or suggest connecting a call center to a plurality of disparate networks. For that reason, Applicants submit that independent claims 1, 11, 21 and 22 are patentable over Kilander, and that the dependent claims by their dependency are patentable for at least that reason as well.

No Suggestion to Include Connection Information in the Query Response

Claims 1, 21 and 22 require that, in responding to the query, connection information of a determined agent be provided. As noted by the Examiner, Kilander does not teach that the response to the query includes connection information of the determined agent. As noted above, Kilander instead discloses transferring the call via a PSTN switch (col. 5, lines 43-50). Kilander therefore has no need for responding to a query with connection information. Kilander would derive no benefit from such a feature, because the call center itself transfers the call to the agent. Applicants therefore respectfully submit that there is no motivation to add that feature to the system of Kilander, and that none is provided by the Examiner.

Furthermore, the Examiner has not identified any teaching or suggestion to provide connection information in response to a query. No cited art discloses such a feature.

Applicants therefore submit that claims 1, 21 and 22, as well as the corresponding dependent claims, are patentable over the reference cited by the Examiner.

Applicants further submit that claims 4 and 14, which require the step of responding to the query to include determining routing instructions for routing the call to the selected agent, are patentable for the same reasons.

No Teaching to Use Agent Skill Level and Most Idle Agent Criteria in Determining Agent

Independent claims 1 and 11 require that the determination of which available agent is to be connected is based, in part, on the agent skill level and most idle agent criteria. Applicants submit that those claims are patentable over Kilander for the additional reason that Kilander contains no teaching or suggestion to use those criteria. Instead, that determination in Kilander is made solely on the basis of agent availability.

Specifically, each agent in the Kilander system has a computer terminal connected to the call center. The agents are selected solely on the basis of availability as determined by the agent's input to the terminal. No other criteria are taught or suggested in Kilander, the only reference cited in the rejection.

The Examiner does not assert that such a feature is disclosed or suggested by Kilander, and provides no motivation for incorporating such a feature.

Applicants therefore respectfully submit that claims 1 and 11, and the corresponding dependent claims, are patentable for at least that additional reason.

Kilander Teaches Away from Deterimining Availability by Whether an Agent Is Not in Communication with One of the Networks

Independent claims 21 and 22, and dependent claim 2 and 12 require that the determination of whether an agent is available for receiving another call be made when the connected call to the agent terminates. In other words, the status of whether the agent is on a call determines whether he is available.

Kilander teaches directly away from such a technique:

> Rather than a call being directed to an agent as soon as that agent hangs up the telephone, the controller waits for an affirmative indication of availability from the agent via the agent's computer terminal over the datalink. This technique of determining agent availability allows the agent to perform post telephone call data entry and processing tasks before having to handle a new call.

Kilander, col. 2, lines 29-36. Kilander is concerned with providing the agent time after the call to complete paperwork, etc. The system of Kilander therefore waits for an input by the agent

into a computer terminal connected to the call center before changing the status of the agent to "available." Kilander discourages the use of a "hang-up" as an indicator of availability. Kilander therefore teaches away from that limitation in the present claims.

For that additional reason, Applicants respectfully submit that claims 2, 12, 21 and 22, as well as the claims depending therefrom, are patentable over Kilander.

No Motivation to Base Routing Instructions on Criteria Claimed in Claims 5 and 15

Dependent claims 5 and 15 are directed to basing routing instructions for routing the call to a determined agent on one of a number of criteria, including lowest cost criteria, a hierarchical criteria, an RTNR/Optimized routing criteria, a time of day, a day of a week, a call origination location, and a network congestion condition.

Applicants submit that there is no teaching or suggestion in the cited art to base the routing instructions on any of those criteria, and that, even it such a limitation were taught, there is no motivation to make the combination made by the Examiner.

The Examiner points to no disclosure of such a limitation. Kilander discloses no such criteria; indeed, as noted by the Examiner in discussing claim 4, Kilander discloses no routing instructions, let alone criteria upon which they are based.

The Examiner states that it would be obvious to determine the routing instructions based on the claimed criteria because "such an arrangement would allow the system to have a basis for determining which agent to select." In fact, the routing instructions are determined after determining which agent to select, because the routing instructions, as claimed, are for routing the call "to the selected agent." Routing instruction criteria could therefore never be a "basis for

determining which agent to select," as proposed by the Examiner. Applicants respectfully submit that the reasons given by the Examiner for modifying Kilander are thus invalid.

Applicants therefore assert that claims 5 and 15 are patentable over the cited art for that additional reason.

*Conclusion*

Applicant therefore respectfully asserts that all the claims in the case are now in condition for allowance, and earnestly request that the Examiner issue a Notice of Allowance.

Should the Examiner have any questions regarding the present case, the Examiner should not hesitate in contacting the undersigned at the number provided below.

Respectfully submitted,

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Date: 6/21/04